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# Taxonomic Notes on Neotropical *Maprounea* Aublet (Euphorbiaceae)

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**ABSTRACT.** A key to and some remarks on *Maprounea* in the Neotropics are presented. *Maprounea guianensis* var. *obtusata* is discussed and raised to specific rank with the new name *Maprounea amazonica*. *Maprounea brasiliensis* is accepted as distinct from *M. guianensis*. The taxa are separated mainly by characters of the leaves and by fruit size. Additionally, *Maprounea glauca* is established as a new synonym of *Mabea taquari*, and a lectotype is designated for the latter.

*Maprounea* Aublet (Euphorbiaceae, Hippomaneae) is a small genus of shrubs and trees occurring in the Neotropics and in Africa. Although the South American taxa have been treated twice quite recently, their taxonomy is still not fully resolved.

Pax and Hoffmann (1912) accepted two neotropical species, *Maprounea guianensis* Aublet and *M. brasiliensis* A. Saint-Hilaire, both without infraspecific taxa. Allem (1976), however, considered these two species to be identical and united them under the older name, *M. guianensis*. Senna (1984) disagreed with him and accepted both species as well as a number of varieties of *M. guianensis*, with the exception of *M. guianensis* var. *undulata* Müller Argoviensis, which she did not consider to be distinct from the typical variety.

Allem's (1976) study was based mainly on plants from central Brazil and concentrated on floral characters, neglecting the varieties described from other regions. The revision of Senna (1984) was uncritical, although it included very detailed illustrations of all taxa. From these illustrations it is quite obvious that the leaves of *M. guianensis* var. *obtusata* (Müller Argoviensis) Müller Argoviensis are very different from those of all other neotropical taxa of the genus.

On further examination of leaf and fruit characters in particular I now conclude that this variety represents a distinct species, and also that *M. brasiliensis* should be kept separate from *M. guianensis*.

## KEY TO THE NEOTROPICAL SPECIES OF *MAPROUNEA*

- 1a. Leaves apically obtuse to rounded to emarginate, abaxially eglandular at base (Fig. 1A); 0–1 pistillate flower per inflorescence; staminate inflorescence at least as wide as long; fruits 8–10 mm long . . . . . *M. amazonica*
- 1b. Leaves apically acute to mucronate to acuminate, rarely obtuse, abaxially often with basal glands, rarely without; (0–)2–3 pistillate flowers per inflorescence; staminate inflorescence longer than wide; fruits 4–10 mm long.
  - 2a. Tree up to 25 m tall; leaves distinctly longer than wide, apically acute to acuminate, abaxially with 0–1(–2) pair(s) of base glands (Fig. 1F), often with additional submarginal glands in upper half; fruits 4–6(–8) mm long . . . . . *M. guianensis*
  - 2b. Shrub up to 1.5 m tall; leaves hardly longer than wide, apically mucronate, rarely obtuse, abaxially usually with 2–4 pairs of basal glands (Fig. 1G), eglandular in upper half; fruits 8–10 mm long . . . . . *M. brasiliensis*

## ***Maprounea amazonica* Esser, nom. et stat. nov.**

Replaced name: *Maprounea guianensis* Aublet var. *guianensis* forma *obtusata* Müller Argoviensis, Linnaea 32: 115. 1863. *Maprounea guianensis* Aublet var. *obtusata* (Müller Argoviensis) Müller Argoviensis, in Martius, Fl. Bras. 11.2: 543. 1874. TYPE: Brazil. Amazonas: Barra (= Manaus), igapó of an igarapé, May 1851, Spruce 1475 (lectotype, selected here, G-DC not seen, microfiche; isolectotypes, BM, BR, E, GH, K, NY, OXF, P, TCD). Figure 1A–E.

The name *Maprounea obtusa* Pax already exists for an African species. A new combination based on the neotropical variety *obtusata* would be very similar to the African name, and because of the risk of confusion a new name, *M. amazonica*, was chosen according to Article 53.3 of the *International Code of Botanical Nomenclature* (Greuter et al., 1994).

Shrub or tree up to 12 m tall and 15 cm stem diam. Bark smooth. Totally glabrous. Monoecious. Stipules broadly elliptic, ca. 0.7–0.9 × 0.5–0.9

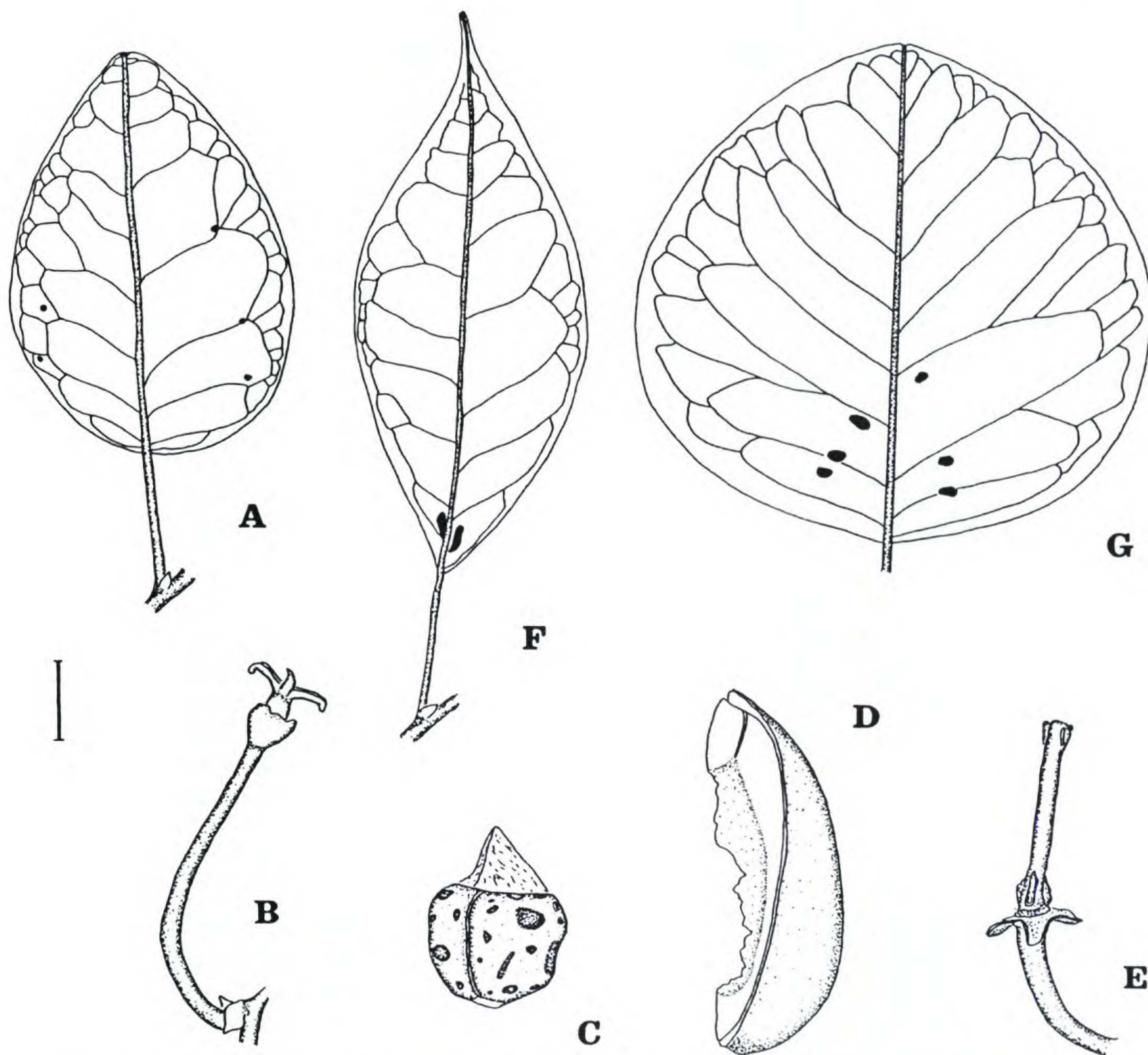


Figure 1. A–E. *Maprounea amazonica* Esser. —A. Leaf, showing glands on lower surface. —B. Pistillate flower. —C. Seed with large caruncle and foveolate surface. —D. Mericarp of fruit with irregularly caducous septum and single apical vascular strand. —E. Remaining columella of fruit without septal remnants. —F. *Maprounea guianensis* Aublet. Leaf, showing glands on lower surface. —G. *Maprounea brasiliensis* A. Saint-Hilaire. Leaf, showing glands on lower surface. Scale bar = 5 mm (A, E–G) or 2 mm (B–D). A, B drawn from *Prance et al.* 11752 (U); C–E from *Prance et al.* 16174 (U); F from *Spruce* 2271 (TCD); G from *Hatschbach* 36979 (HBG).

mm, entire, eglandular; petioles 0.9–1.8 cm long; leaf blades membranous to chartaceous, ovate to orbicular, 2.5–5 × 1.5–3.5 cm, apex obtuse to rounded to emarginate, margin entire, base slightly emarginate to rounded to slightly obtuse, distinctly whitish below and with (0–)1–6 glands on each side of midvein, glands 0.2–0.4 mm diam., submarginal, often associated with secondary veins, strictly eglandular at base, secondary veins in 8–13 pairs and irregularly brochidodromous. Inflorescences greenish to yellowish (staminate flowers sometimes reddish), usually on short lateral branches, consisting of a peduncle 5–8 mm long and a head of staminate flowers 2–2.5 mm long and 2–3 mm diam. and 0–1 pistillate flower inserted near base

of peduncle. Staminate flowers nearly sessile; calyx ca. 0.75 mm long; stamens 2, filaments up to 1 mm long, partly fused, anthers ca. 0.2 mm long. Pistillate flowers: pedicel 2–9 mm long; calyx with 3 free sepals, when flowering nearly as long as ovary; style nearly absent, stigma ca. 1.5 mm long. Fruits greenish, pedicel 7–17 mm long; schizocarp globular and slightly sulcate, smooth, dry, opening first loculicidally and soon afterward septicidally; mericarps 8–10 mm long, pericarp ca. 1.2 mm thick, septa very thin, fragile, early and irregularly caducous, remaining columella terete, not winged (Fig. 1E). Seeds 4–4.5 × 4 mm, with a large caruncle and distinctly foveolate surface (Fig. 1C).

The invariable absence of a distinct leaf apex

and of basal glands (Fig. 1A) are unique in neotropical *Maprounea*. Additionally, the style is very short, almost absent (Fig. 1B), whereas it is usually distinct and 0.5–2 mm long in the other species. The staminate flowers are similar in all taxa, just as they are in closely related species throughout the Hippomaneae. *Maprounea amazonica* grows along rivers, particularly in igapó forests and periodically inundated white sand campinas, whereas both other species occur in non-inundated savannas, and secondary and evergreen forests.

In the Neotropics, *Maprounea* is represented by one widespread species, *M. guianensis*, which occurs from Panama to Bolivia, and two species with a more restricted distribution, *M. amazonica* and *M. brasiliensis*.

*Maprounea amazonica* appears to be confined to northern and central Amazonia and is most common in the Rio Negro basin. A single record of *M. amazonica* for eastern Amazonia (Pará), cited by Senna (1984), unfortunately could not be examined for this study. In the Guianas of northeastern South America (French Guiana, Guyana, Suriname) *M. guianensis* is the only species that occurs there. One hundred thirty-two collections I studied for a recent revision of the genus for the *Flora of the Guianas* (Esser, in prep.) belong to this species.

*Maprounea brasiliensis* seems to be restricted to the cerrado of central Brazil, in Goiás, Minas Gerais and the Distrito Federal. Senna (1984) also cited collections from Bahia, but these were not available for examination. The distinction between *M. brasiliensis* and *M. guianensis* is less clear-cut than those between either of them and *M. amazonica*. Among the specimens of *M. guianensis* studied, only one (*Williams 6470* from Peru) showed an exceptional fruit length of 6–8 mm; in all other cases the fruit size was sufficient for distinction from *M. brasiliensis*.

The African *M. africana* Müller Argoviensis, of which the abovementioned *M. obtusa* Pax is a synonym, has leaves very similar to those of *M. amazonica*. It differs sufficiently by inflorescences with (1–)2–3 pistillate flowers, long styles, staminate inflorescences distinctly longer than wide, and 6–8-mm-long seeds with a completely smooth surface.

*Additional specimens examined.* BRAZIL. **Amazonas:** Rio Negro between Paraná da Floresta and Rio Branco, 26 June 1979 (fl), *Alencar 42* (GH); Rio Negro, Taruma, 26 Apr. 1911 (fl), *Ducke MG 11574* (BM); Manaus, Igarapé da Cachoeira Grande, 28 Mar. 1937 (fl), *Ducke 435* (A); Rio Taruma-mirim, Comunidade Nossa Senhora de Fátima, 16 May 1992 (fl), *Ferreira 230* (K), 16 May 1992 (fr), *Ferreira 244* (K); Rio Negro, Rio Marié, 12 June 1947 (fl), *Fróes 22394* (U); Rio Negro between Ilha do Japó and Barcelos, 27 June 1979 (fr), *Poole 1687* (K); Rio

Negro opposite Manaus 3–6 km upstream, 8 Apr. 1971 (female fl), *Prance, Coêlho et al. 11752* (K, U); Rio Negro, Rio Cuieras just below mouth of Rio Brancinho, 26 Sep. 1971 (fl), *Prance, Coêlho & Monteiro 14878* (U); Rio Uneixi, 5 km above mouth, 8 Nov. 1971 (fr), *Prance, Maas et al. 16174* (K, U); Rio Negro 30 km above Manaus, 28 Sep. 1974 (fl), *Prance 22763* (U); Rio Aracá near Serrinha, 80 m, 25 July 1985 (fr), *Prance, Mota & Silva 29769* (K); without locality, without date (fl), *Regnell III-639* (BM, P); Cachoeira Grande bei Manaus, May 1910 (fl), *Ule 8898* (K, L). COLOMBIA. **Vichada:** Parque Nacional Natural "El Tuparro," S edge of Laguna Guaipé, 80 m, 27 Feb. 1985 (fr), *Zarucchi & Barbosa 3490* (K). VENEZUELA. **Amazonas:** Bana, 4.5 km SSW from mouth of Río Temi, 100 m, 6 Mar. 1996 (fr), *Berry, Romero & Brako 6035* (TCD); bank of Orinoco River near Samariapo, 90 m, 17 Nov. 1965 (fr), *Breteler 4714* (K); Caño Caname, 100 m, 3 May 1979 (fl), *Davidse, Huber & Tillett 17151* (K); Caño Perro de Agua, 100 m, Nov.–Dec. 1978 (fr), *Huber & Tillett 2751* (K); Caño Butrón, afluyente del Caño Ucata, 70 m, 21 Oct. 1989 (fr), *Romero & Melgueiro 2151* (GH); Samariapo, 124 m, 2 July 1942 (fl), *Williams 15957* (A); Caño San Miguel just above Limoncito, 15 km from Río Guainía, 120 m, 28 June 1959 (fl), *Wurdack & Adlerley 43218* (GH, K).

Hamilton (1825) described *Maprounia glauca*. This name has never been used subsequently, and its interpretation has remained uncertain. It was usually placed in *Maprounea*, and *Maprounia* was treated as an orthographic variant of it (see Farr et al., 1979; Howard et al., 1981). However, Senna (1984) excluded the species from *Maprounea*, stating that it may belong to *Mabea* Aublet.

Study of the type at Paris (P) revealed that it does indeed belong to *Mabea taquari* Aublet. This synonymy was recognized by M. Emmerich (1970 in sched.), but remained unpublished. I therefore propose this new synonymy:

***Mabea taquari*** Aublet, Hist. Pl. Guiane 2: 870, 4: pl. 334, fig. 2. 1775. TYPE: Guyane Française. Cayenne, *Aublet s.n.* (lectotype, designated here, BM; isolectotypes, G, P, W).

*Maprounia glauca* W. Hamilton, Prodr. Pl. Ind. Occid.: 54. 1825. Syn. nov. TYPE: Guyana. Without locality, Herb. *Desvaux s.n.* (holotype, P).

Because Hamilton mentioned only this one species, and no other species was ever described under *Maprounia*, *Maprounia* W. Hamilton becomes a synonym of *Mabea*.

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